HSPRN
health system performance research network

CAHSPR 2017 Conference Abstracts

Presentations involving HSPRN Members (in order of appearance)

2017 CAHSPR Conference: Presentation Abstract

Development of quality indicators for ambulatory care for older adults with diabetes with comorbid chronic conditions: a Delphi study

Presented by: Yelena Petrosyan, University of Toronto, HSPRN

Poster Presentation, Wednesday, May 24, 9:45 – 10:45am & 12:00 – 1:00pm

Objective

To develop a set of quality indicators for ambulatory care for older adults with four disease combinations that can be measured using administrative data, including concordant: diabetes 1) with comorbid hypertension, 2) with comorbid hypertension and ischemic heart disease, and discordant: diabetes 1) with comorbid osteoarthritis, 2) with comorbid osteoarthritis and depression.

Methods

We used a two-stage Delphi study to critically appraise and select an appropriate list of quality indicators for ambulatory care for older adults with diabetes with selected comorbidities. Four disease combinations were selected as the most prevalent multimorbidity clusters among older adults. A fifteen-member Canadian expert panel with broad geographical and clinical representation participated in this study. A 73% agreement threshold was required for high consensus, and 60-72% for moderate consensus as measured on a 5-point Likert type scale. The panel evaluated process indicators for meaningfulness, potential for improvements in clinical practices, overall value of inclusion, and outcome indicators for importance, modifiability and overall value of inclusion.

Results

Panelists reached rapid consensus on quality indicators for care for older adults with diabetes with selected concordant conditions, but it was more complicated for care for diabetes patients with selected discordant comorbid conditions. Overall, twenty one high-consensus and nineteen medium-consensus indicators were selected for assessing ambulatory care for older adults with four selected disease combinations. We observed several inconsistencies between guideline recommendations and the expert panel members' opinions on some monitoring testing and its frequency, as well as some pharmacological treatment recommendations in older adults with selected four disease combinations. All identified indicators assess clinical aspects of the performance of ambulatory care and related outcomes for older adults with selected disease combinations.

Conclusions

The developed quality indicators are not intended to provide a comprehensive tool set for measuring quality of care for older adults with diabetes with comorbidities. Rather, they address clinical aspects of care and can be used as a starting point for further development and use in ambulatory care settings.

Co-authors: Jan M. Barnley, University of Toronto, HSPRN, Kerry Kuluski, University of Toronto, HSPRN
Barbara Liu, Sunnybrook Research Institute, Walter P. Wodchis, University of Toronto, HSPRN

2017 CAHSPR Conference: Presentation Abstract

Primary care and health inequality: natural experiment comparing England and Ontario

Presented by: Dr. Walter P. Wodchis, University of Toronto, HSPRN

Poster Presentation, Wednesday, May 24, 9:45 – 10:45am & 12:00 – 1:00pm

Objectives

It is not known whether equity-oriented primary care reforms can reduce health inequality within high-income settings that have pre-existing universal primary care systems. We provide some evidence by exploiting an international natural experiment. We compared health inequality trends between two similar jurisdictions – one of which implemented equity-oriented primary care reform in the mid-to-late 2000s as part of a cross-government strategy for reducing health inequality (England), and one which did not emphasize equity in its primary care reforms (Ontario, Canada).

Approach

We analysed whole-population data on 32,482 neighbourhoods (with mean population size of approximately 1,500 people) in England, and 18,961 neighbourhoods (with mean population size of approximately 700 people) in Ontario. We examined trends in mortality amenable to healthcare by decile groups of neighbourhood deprivation within each jurisdiction. We used linear models to estimate absolute and relative gaps in amenable mortality between most and least deprived groups, considering the gradient between these extremes, and evaluated difference-in-difference comparisons between the two jurisdictions.

Results

Inequality trends were comparable in both jurisdictions from 2004-6 but diverged from 2007-11. Compared with Ontario, the absolute gap in amenable mortality in England fell between 2004-6 and 2007-11 by 19.8 per 100,000 population (95% CI: 4.8 to 34.9); and the relative gap in amenable mortality fell by 10 percentage points (95% CI: 1 to 19). The biggest divergence occurred in the most deprived decile group of neighbourhoods.

Interpretation

In comparison to Ontario, England succeeded in reducing absolute socioeconomic gaps in mortality amenable to healthcare from 2007 to 2011, and prevented them from growing in relative terms. Equity-oriented primary care reform in England in the mid-to-late 2000s may have helped to reduce socioeconomic inequality in health.

Co-authors: Richard Cookson, University of York; Luke Mondor, Institute for Clinical Evaluative Sciences, ICES, HSPRN; Miqdad Asaria, University of York; Dionne S Kringos, University of Amsterdam; Niek S Klazinga, University of Amsterdam

2017 CAHSPR Conference: Presentation Abstract

Scheduled Day Surgery for Type II Supracondylar Fractures in a Paediatric Tertiary Care Hospital: A Cost Minimization Analysis

Presented by: Heebah Sultan, University of Toronto, HSPRN; Reham Abdelhalim, University of Toronto, HSPRN; Shawna Cronin, University of Toronto, HSPRN

Poster Presentation, Wednesday, May 24, 9:45 – 10:45am & 12:00 – 1:00pm

Objectives

The study objective was to quantify and compare costs of a scheduled day surgery approach to the standard of care (inpatients undergoing surgery) for type II supracondylar humeral fractures (SCH#) at an Ontario paediatric hospital, as evidence suggests that surgical delays for up-to four days does not affect clinical outcomes.

Approach

Using a cost-minimization approach, the base case analysis adopted was the health system perspective and a secondary analysis adopted the societal perspective. The time horizon was from the episode-of-care to discharge following surgery. A decision tree was developed to model both pathways using probabilities derived from chart reviews and costing data sources. Uncertainty in model parameters were assessed using one-way and probabilistic sensitivity analyses for the probabilities of requiring an open reduction, ambulatory costs for the hospital and for transfers, and average inpatient and acute care costs. Results were expressed as costs per patient per episode-of-care in 2016 Canadian dollars.

Results

Findings demonstrated cost savings of $2,697 from the health system perspective and $2,348 from the societal one. On average, adoption of the scheduled day surgery approach would save the health system 1.2 inpatient days. Another significant cost saving included the option to schedule surgeries on weekdays and during regular work hours, avoiding additional after hours and weekend fees for physicians. For the societal perspective, hospital stay and physician costs were significant cost drivers. Increased travel time, parking, and productivity loss costs would be absorbed by families and businesses, despite the cost savings to the health system. Sensitivity analyses confirmed that the day surgery approach would yield savings 98% and 99% of the time for the health system and societal perspectives, respectively.

Conclusion

This study suggests that a scheduled day surgery approach for pediatric type II SCH# represents significant cost savings from both health system and societal perspectives. Exploration of costs absorbed by families and examining how the proposed approach affects the experience of children and families should be examined in greater depth.

Co-authors: Camp, M; Moretti, M; Pincus, D.; Hancock-Howard, R; Coyte, P

2017 CAHSPR Conference: Presentation Abstract

Low Disability at Admission Predicts faster Disablement in Long-Term Care Residents

Presented by: Walter Wodchis, University of Toronto, HSPRN

Oral Presentation, Wednesday May 24, 1:00 - 2:15 pm, A9.2

Objectives

Disablement is when people lose their ability to perform activities of daily living (ADLs) over time; it is associated with lower quality of life and higher healthcare costs. This study examines whether disability and specific geriatric syndromes present at long-term care admission predict residents' rate of disablement over two years.

Approach

Longitudinal study of 12,334 residents admitted to 633 Ontario long-term care homes between April 1st 2011 and March 31st 2012. Eligible residents received an admission assessment of disability using the RAI-MDS 2.0 ADL long-form score (range 0 – 28) and two subsequent disability measures in the home they were admitted to. Regression models estimated the adjusted association between low versus high disability, pain, balance impairment and cognitive impairment at admission with residents' rate of disablement over two years.

Results

Residents had a median disability score of 13 at admission. Residents with disability scores below or equal to the sample median experienced disablement at a rate of 0.43 (95% CI: 0.42, 0.45) points per month, whereas those with above-median disability at admission became disabled at a rate of 0.17 (95% CI: 0.15, 0.18) points per month. Pain, balance impairment and cognitive impairment at admission had negligible effects on resident disablement over two years.

Conclusion

Residents who are more disabled at admission experience slower disablement over two years than residents who are less disabled at admission. This rate difference may reflect an untapped opportunity for slowing disablement among residents who are admitted to long-term care with lower disability.

Co-Authors: Natasha Lane, University of Toronto, HSPRN

2017 CAHSPR Conference: Presentation Abstract

Evaluating quality of care among older adults with diabetes with comorbid chronic conditions: a retrospective cohort study

Presented by: Yelena Petrosyan, University of Toronto, HSPRN
Oral Presentation, Wednesday, May 24, 2:45 – 4:00pm, B2.3

Objectives
1) to examine the difference in the quality of care between patients with selected concordant vs. discordant comorbid conditions, and 2) to examine associations between quality of care measures and all-cause hospitalizations among older adults with diabetes with selected comorbid conditions.

Methods
This population-based cohort identified all people aged 65 and over with diabetes in Ontario having at least one selected condition, using clinical administrative databases, in the period from 2010 to 2014. The cohort was stratified into four disease combinations, including concordant: diabetes 1) with hypertension, 2) with hypertension and ischemic heart disease, and discordant: diabetes 3) with osteoarthritis, and 4) with osteoarthritis and depression. A specific set of measures identified using a Delphi approach was used for the purpose of this study. A generalized estimating equations approach was used to examine associations between the quality of care and all-cause hospitalizations.

Results
The study findings suggest that patients with 2 vs. 1 selected comorbid conditions are at risk of suboptimal care, especially those with discordant conditions. The incidence of all-cause hospitalizations markedly increased in diabetes patients with 2 vs. 1 selected comorbid condition, especially in those with discordant conditions. The median score of continuity of care declined in patients with 2 vs. 1 selected condition, especially in those with discordant conditions. The greater continuity of care was associated with lower hospital utilization for diabetes patients with comorbidities, including concordant: 1) with hypertension, 2) with hypertension and ischemic heart disease, and discordant: 3) with osteoarthritis, and 4) with osteoarthritis and depression (OR=0.70, 95% CI 0.69-0.72; OR=0.74, 95% CI 0.72-0.77; OR=0.73, 95% CI 0.72-0.74, and OR=0.72, 95% CI 0.67-0.80, respectively).

Conclusions
There is a need for a holistic approach in education and clinical care of older adults with diabetes taking into account concomitant conditions that affect patient's health status. Chronic disease management programs among older diabetes patients must incorporate levers to promote continuity, especially for those with discordant conditions.

Co-authors: Jan M. Barnley, University of Toronto, HSPRN, Kerry Kuluski, University of Toronto, HSPRN
Barbara Liu, Sunnybrook Research Institute, Walter P. Wodchis, University of Toronto, HSPRN

2017 CAHSPR Conference: Presentation Abstract

Operationalizing Patient-Centered Integrated Care: The Gap Between Discourse and Action in Ontario's Health Links

Presented by: Reham Abdelhalim, PhD Student, Institute of Health Policy, Management and Evaluation,
University of Toronto, HSPRN

Oral Presentation, Wednesday May 24, 2:45- 4:00 pm, B7.3

Health Links (HL) was launched as a patient-centered initiative to better coordinate care for complex patients in Ontario. HL business plans demonstrated a clear vision to putting patients front and center in every step of the intervention. This study explored if the vision of patient-centeredness was operationalized as planned. We conducted evaluative case studies of three HLs within one regional health authority (Local Health Integration Network) in the spring/summer of 2016. Data was collected through semi-structured interviews with leaders and providers working within each case and an in-depth document analysis of business plans, pre-implementation documents, meeting minutes and all publicly available electronic materials. We compared documentation to interview data, conceptualizing documents as the source of the planned view and draw the operationalizing view from the interviews with leaders and providers.

Our preliminary results show that leaders and providers agree with planned view that patient-centeredness and engagement is the key philosophy behind HL as a program. However, participants identified ambiguity about the mechanisms of execution especially when working with such complex patients. Although the documents emphasized the importance of patients in managing their own care, leaders and providers found many barriers to this, for example low buy-in from some patients and lack of patient access to medical records. While having patients on HL committees was emphasized in all HL documents, leaders and providers highlighted that most of the time patients do not have a voice and that a single patient will never represent all patients. Patient-centeredness is a primary goal for HLs. However, results point to a key difference between discourse and action even when intentions are strong. It points to a need for policy and decision-makers to better support patient-centeredness in these initiatives and the need to find ways to meaningfully engage complex patients.

Co-authors: Agnes Grudniewicz, University of Ottawa, Jennifer Gutberg, University of Toronto,
Sobia Khan, University of Toronto, Jenna Evans, Cancer Care Ontario, Walter P. Wodchis, University of Toronto

2017 CAHSPR Conference: Presentation Abstract

Hospital characteristics and use of evidence-based discharge practices in Ontario, Canada

Presented by: Jennifer Innis, HSPRN

Oral Presentation, Wednesday, May 24, 4:15-5:30 pm, Stream 3: Health System Performance

The objective of this study was to examine the relationship of hospital size, teaching status and location with the use of evidence-based discharge practices based on Project RED (Re-Engineered Discharge). These practices are associated with improved patient and health system outcomes. Larger organizational size, teaching status and urban location have been associated with the increased use of evidence-based practices in health care organizations. A survey measuring the use of evidence-based discharge practices was administered to all 143 acute care hospitals in Ontario that have an inpatient medicine unit, and 79 hospitals responded (55% participation rate). Multiple regression analysis was used to examine the relationship between survey score and the hospitals' size (number of acute care beds), teaching status and location (region and rurality). Smaller hospital size was significantly associated with greater use of evidence-based discharge practices, and survey scores were found to be highest in the north region of the province, a largely rural area. A significant interaction was found between size and rurality. No relationship was found between teaching status and use of evidence-based discharge practices. There may be improved information continuity and sharing of resources between smaller hospitals in rural settings. In addition, it is possible that there are different relationships between hospitals and other health care settings, such as primary and long-term care organizations, in urban and rural regions. These are factors that may be associated with an increased use of evidence-based discharge practices. The use of evidence-based discharge practices was higher in small, rural hospitals and in the north region of the province. Future research into the reasons for these differences could offer insight into those factors that may influence use of evidence-based practices in hospitals.

Co-authors: Jan Barnsley, University of Toronto, HSPRN; Whitney Berta, University of Toronto; Imtiaz Daniel, Ontario Hospital Association, University of Toronto.

2017 CAHSPR Conference: Presentation Abstract

Validation of Incident Long-term Care Admissions in Ontario Using Administrative Data

Presented by: Nassim Mojaverian, Methodologist, Institute for Clinical Evaluative Sciences (ICES); Ryan Ng, Epidemiologist/PhD Candidate, University of Toronto, HSPRN

Oral Presentation, Wednesday May 24, 4:15-5:30 pm; C4.1

Objectives

This validation study evaluated algorithms based a combination of prescription drug claims and physician billings for determining admissions into publicly-funded long-term care (LTC) homes in Ontario prior to 2010, where there was an absence of longitudinal LTC data at the individual level.

Approach

The analysis utilized health administrative data at the Institute for Clinical Evaluative Sciences (ICES). Prescription drug claims, physician billing, and LTC entry were obtained from the Ontario Drug Benefit (ODB) database, the Ontario Health Insurance Plan (OHIP) data, and the Continuing Care Report System (CCRS), respectively. The CCRS – the reference standard – contains records of LTC admissions/discharges, as well as comprehensive health assessments of residents in LTC homes from 2010 onwards. Various combinations of OHIP and ODB records (2012-2013) were validated against the CCRS. Performance measures included sensitivity, specificity, predictive values and proximity to the CCRS admission date.

Results

In 2012, 25 162 Ontarians over the age of 50 were admitted into LTC for the first time. The average age of the residents at admission was 83 years. The results from our preliminary analysis indicate the best performing algorithm uses 2 OHIP, 2 ODB, or 1 OHIP and 1 ODB claims that were no more than 365 days apart between any 2 codes (sensitivity: 99.3%, specificity: 98.8%). The validated algorithm identified fills an existing data gap by expanding our capacity to determine the incidence of LTC entry and examine the health care needs of new LTC residents prior to the introduction of the CCRS. Further analysis will use the validated algorithm to determine the health profiles of new LTC residents over 15 years (2000-2015).

Conclusion

The validated algorithm will enable future researchers to examine LTC use and trends prior to the systematic collection of CCRS data. Our findings will also provide policymakers in Ontario with a better understanding of the trends in LTC utilization and the health care needs of new residents.

Co-authors: Amy Hsu, Ottawa Hospital Research Institute, HSPRN; Natasha Lane, University of Toronto; Peter Tanuseputro, Bruyère Research Institute, Ottawa Hospital Research Institute; Walter Wodchis, Institute of Health Policy Management and Evaluation, University of Toronto

2017 CAHSPR Conference: Presentation Abstract

What Works in Integrated Care Programs for Older Adults with Complex Needs? A Realist Review

Presented by: Maritt Kirst PhD
Poster Presentation, Thursday, May 25, 9:15-10:15 am

Objectives

We conducted a realist review of the evaluative evidence on integrated care programs for older adults to identify key processes that lead to the success or failure of these programs in achieving outcomes such as reduced healthcare utilization, improved patient health, and improved patient and caregiver experience.

Approach

The realist review method sought to identify the relationship between program mechanism, context and outcomes, through processes of initial theory-building, literature search, extraction, quality appraisal and synthesis. Initial theories guiding the review included trust in multidisciplinary team relationships, organizational readiness, and the role of leadership to establish an organizational culture receptive to integrated care programs. We searched for international academic literature in 12 indexed, electronic databases and grey literature through internet searches, to identify evaluative studies on integrated care programs for older adults, published between January 1980 and July 2015, in English.

Results

A total of 65 articles, representing 28 integrated care programs, were included in the review. We identified two context-mechanism-outcome configurations (CMOcs): 1) trusting multidisciplinary team relationships, and 2) provider commitment to and understanding of the model. The review emphasizes the importance of trusting multi-disciplinary team relationships for processes of effective communication and knowledge sharing, and for program success. Contextual factors such as strong leadership that sets clear goals and establishes an organizational culture in support of the program, along with joint governance structures, supported team collaboration and subsequent successful implementation. Provider commitment to and understanding of the model (organizational readiness), as fostered by strong leadership, clear governance, time to build an infrastructure to implement and flexibility in implementation, emerged as key processes instrumental to success.

Conclusion

This review included a wide range of international evidence, and identified key processes for successful implementation of integrated care programs that should be considered by program planners, leaders and evaluators.

Co-authors: Jennifer Im BA, Tim Burns MHI, G. Ross Baker, PhD, Jodeme Goldhar, MHSc, Patricia O’Campo PhD, Anne Wojtak MHSc, DrPH(c), Walter Wodchis PhD

2017 CAHSPR Conference: Presentation Abstract

Partners Advancing Transitions in Healthcare (PATH) Project Evaluation

Presented by: Suman Budhwani, PhD Candidate, Institute of Health Policy, Management & Evaluation (IHPME), UofT, HSPRN

Poster Presentation, Thursday May 25, 9:15-10:15 am

Objectives

The PATH project was implemented in May 2014 in Northumberland County to improve health system transitions for older adults with chronic conditions and their caregivers. The objectives of this study were to evaluate participant experience and changes in health utilization for project participants using the *My Health Experience* technology platform.

Approach

Real-time survey data were collected via participant and provider self-report from the technology platform. Data collected included baseline and demographic information, self-reported needs, participant experiences with health care encounters, standardized measures such as the CollaboRATE scale, PAM and PACIC measures, and the overall utility of the tool. Additionally, for the summative evaluation, a propensity-matched cohort was constructed selecting controls meeting the PATH enrolment criteria. Outcome measures of interest included acute hospitalizations, ED visits, days in acute care, primary care and specialist visits. Comparative effectiveness evaluation was performed on each indicator using a Difference-in-Differences (DID) approach with generalized estimating equations (GEE).

Results

A total of 319 participant experience surveys were completed by 73 of the 121 PATH enrollees. A net positive trend was noted for questions assessing participant needs and experiences, and provider communication. CollaboRATE scores remained consistent, while some increases were noted in PAM and PACIC scales. Provider participation in the survey was limited. Those who did participate reported low utilization of the tool and few derived benefits. For the utilization analysis (n=106 PATH enrollees, matching rate=94%), the number of hospital days increased significantly over time for controls (p=0.017 [sig=0.10]), but did not change significantly for PATH participants. No significant changes over time were observed for PATH enrollees or controls, and DID estimates were also not statistically significant, on any of the other outcome measures.

Conclusion

PATH had limited effects on health system utilization and relatively low response rates to self-reported experience measures. Although the tool may have demonstrated utility, certain systematic barriers exist such as patient and provider motivation which may prevent the tool from contributing to significant changes in participants' health service utilization.

Co-authors: Kevin Walker, HSPRN; Luke Mondor, HSPRN; Yu Qing (Chris) Bai, HSPRN; & Walter Wodchis, UofT, ICES, HSPRN

2017 CAHSPR Conference: Presentation Abstract

Examining Income Inequalities in Cancer Screening
A decomposition analysis using administrative data in Ontario, Canada

Presenter: Anum Irfan Khan - PhD(c) University of Toronto, HSPRN
Poster Presentation, Thursday, May 25, 9:15 – 10:15am & 11:30am – 12:45pm

Multiple studies have reported on socioeconomic inequalities in cancer screening. This study sought to further our understanding of the drivers of socioeconomic inequalities in cancer screening uptake through a decomposition analysis. We examined the relative contributions of determinants to measured disparities in cancer screening uptake across income groups within Ontario. Ontario residents who participated in the 2009/10 or 2011/12 Canadian Community Health Survey Cycles and were eligible for colorectal (n=22358) or cervical cancer (n=22465) screening were included in the study. We measured income inequalities in screening uptake using the Concentration Index (CI) corrected for binary data (Erreygers-corrected, CErreygers); CI>0 indicates inequality to the disadvantage of the poor and CI<0 indicates inequality to the disadvantage of the rich. A decomposition of CErreygers was performed (using a probit regression with marginal effects) to determine the relative contribution of sociodemographic, socioeconomic and health-system variables to measured inequalities in cancer screening uptake. Overall, the rate of cancer screening uptake was 61.9% for colorectal cancer and 66.6% for cervical cancer. The corresponding CErreygers (and standard error) were 0.074 (0.008) and 0.148 (0.007) for colorectal and cervical cancer screening respectively, suggesting that receipt of appropriate screening is concentrated within higher income groups - with greater inequality evident for cervical cancer screening. The largest contributors to income inequalities in colorectal cancer screening included household income/socio-economic status (102.3%), marital status (42.6%) and home ownership (25.3%). Age (-29.8%), sex (-10.3%), household size (-23.4%), and employment status (-20.7%) all contributed negatively to measured inequality. For cervical cancer screening, household income (38.9%), marital status (18.6%) and home ownership (14.3%) were major contributors to measured inequality. All other determinants contributed <10% to CErreygers. Decomposition of the concentration index provides policymakers with key insights around the determinants of observed inequalities in screening uptake for colorectal and cervical cancer. These findings can play a critical role in shaping public health policy and prevention programming to improve equitable participation and uptake of cancer screening across Ontario.

Co-authors: Luke Mondor - ICES, HSPRN; Dr. Deborah Cohen - University of Ottawa, CIHI, HSPRN; Dr. Walter Wodchis - HSPRN, University of Toronto.

2017 CAHSPR Conference: Presentation Abstract

Caregivers Voice through a Quantitative Lens

Presented by: Sara Shearkhani, PhD Student, Institute of Health Policy, Management and Evaluation (IHPME), University of Toronto, HSPRN

Oral Presentation, Thursday, May 25th - 10:15 - 11:30am, Concurrent Session D, Stream 3, Health System Performance, 51

Informal caregivers are under-represented in evaluations of health care interventions and health system performance. The purpose of this research was to identify measures of informal caregivers' experience with the healthcare system, costs and health outcomes. Measurement of caregiver experience and outcomes can inform the design and evaluation of future interventions.

Using the "Triple Aim" measurement framework, a grey literature search was conducted focusing on reports published in English by government and non-for-profit agencies on caregiving since 2000. To supplement this review, a scoping review was conducted to identify common measurement tools used to capture Alzheimer/Dementia caregiving experiences. A search of three databases (Ovid MEDLINE, EMBASE, and Scopus) was completed for the period of 2011 to 2016. Additionally, we engaged key stakeholders including patients and caregivers to further explore the results of our review in a 5-hour workshop held in Toronto.

Twenty-seven reports were identified as eligible for inclusion in the grey literature along with 20 peer-reviewed articles. Common caregiver-self-reported outcome measures were depression, stress, distress, anxiety, burden, and overall mental and physical health. These outcomes were measured using either generic health status instruments such as Health Related Quality of Life, Anxiety and Depression, or caregiver specific tools assessing caregiver burden and strain. Common caregiving costs were out-of-pocket costs, and caregiver productivity loss. Out of 47 articles reviewed, only 6 included experience measures beyond satisfaction in their analysis exploring caregivers' experience with the healthcare system. Consultation with stakeholders revealed the importance of taking into account the dyadic patterns of care between patient and caregiver highlighting that caregivers' wellbeing is closely linked to patients' wellbeing.

This study provides evidence that contributes to the design of future healthcare evaluations, interventions, and policies aimed to improve the healthcare system for caregivers. It identifies three main areas that require further investigation, including caregiver's experience with the healthcare system, caregiver's healthcare utilization cost, and the dyadic pattern of care.

Co-Authors: Walter P. Wodchis, IHPME, Institute for Clinical Evaluative Sciences (ICES), HSPRN; Ivy Wong, Women's College Hospital; Dilzayn Panjwani, Women's College Hospital; Geoffrey Anderson, IHPME

2017 CAHSPR Conference: Presentation Abstract

A Collaborative Multi-Method Evaluation of Health Links: Results and Lessons Learned for System-level Program Evaluation

Presented by: Walter Wodchis, University of Toronto, Agnes Grudniewicz, University of Ottawa, Richard Glazier, ICES, Ruta Valaitis, McMaster University, Michael Green, Queens University, Michael Wilson, McMaster University, Phil Graham, Ministry of Ontario

Panel Presentation, Thursday, May 25th - 12:45 - 2pm, E3.1

Overview

In 2012, the Ontario Ministry of Health and Long Term Care (MOHLTC) launched Health Links, a system-wide transformation to improve the coordination of care for the highest cost users in the health care system. By 2017, Health Links has matured to include more than 20,000 patients with coordinated care plans in nearly 90 individual Health Links across the province. The MOHLTC sought to evaluate the Health Links program by collaborating with Health Links and selected research groups. This panel presentation describes the collaborative evaluation program and results to date with highly relevant lessons for evaluations of broad health system programs.

Approach

In 2016, the MOHLTC approached five research groups to collaborate on this evaluation. A multi-method approach was undertaken including: 1. A quantitative evaluation using a quasi-experimental design based on a secondary analysis of provincial health administrative data; 2. Case studies of the implementation across six Health Links in three regions in the province; 3. Patient surveys to evaluate the impact of Health Links on patient experience in primary care across nine Health Links in three regions; 4. Caregiver surveys and interviews to assess the impact of Health Links on caregivers in the same nine Health Links ; and 5. A citizen panel to help direct the future orientation and further spread of the Health Links' approach to care.

Results and Implications

The panel speakers will provide insights from each of these perspectives as well as share their experiences with the broad collaborative approach to the evaluation. The anticipated value of this effort is a robust and time-sensitive evaluation outcome. Each perspective in the evaluation is represented. Dr. Walter Wodchis is scientific lead for the evaluation consortium and will provide context for the evaluation. Dr. Rick Glazier will outline both the opportunities and challenges of implementing a rigorous quasi-experimental design in the absence of a robust patient roster. Dr. Agnes Grudniewicz will highlight the approach and insights obtained from in-depth case studies of the implementation of Health Links, with an emphasis on insights about the organizational context and capabilities for successful implementation of integrated care. Dr. Mike Green will discuss the implementation of a patient survey and use of newly enrolled and existing clients to develop an assessment of the effects of Health Links. Dr. Ruta Valaitis will present a novel approach and insights gained from incorporating caregivers in the evaluation of this program. Dr. Michael Wilson will discuss the approach and outcomes of a citizen's panel on the topic of Health Links. Phil Graham, the director of primary care for MOHLTC will discuss the importance of this project, how the ministry decided to undertake this approach to the evaluation, and also to share his perspectives on policy implications arising from the evaluation.

2017 CAHSPR Conference: Presentation Abstract

Establishing the Representativeness of Physician and Patient Respondents in the Ontario QUALICOPC Study Using Administrative Data

Presented by: Allanah Li, Master’s Student, Institute for Health Policy, Management, and Evaluation, University of Toronto

Oral Presentation, Friday, May 26 11:30am - 12:45pm Concurrent Sessions G
G4: Primary Health Care

Objectives
QUALICOPC is an international survey of primary care performance. QUALICOPC data have been used in several primary care studies, yet the representativeness of the Canadian QUALICOPC survey is unclear. This study examined the representativeness of QUALICOPC physician and patient respondents in Ontario using administrative data.

Approach
This representativeness study linked QUALICOPC physician and patient respondents in Ontario to administrative databases at the Institute for Clinical Evaluative Sciences. Physician respondents were compared to other physicians in their practice group and all Ontario primary care physicians on demographic variables and practice characteristics. Patient respondents were compared to other patients rostered to their primary care physicians, patients rostered to their physicians' practice groups, and a random sample of Ontario residents on sociodemographic characteristics, morbidity, and health care utilization. Standardized differences were calculated to compare the distribution of characteristics across cohorts.

Results
The QUALICOPC physician respondents had a higher proportion of younger, female physicians and Canadian medical graduates compared to the other physicians in their practice groups and the rest of Ontario. The survey included an overrepresentation of physicians in Family Health Team practice models, compared to the provincial proportion for primary care physicians. QUALICOPC patient respondents were more likely to be older and female, with higher levels of morbidity and health care utilization, compared with the other patients in their physicians' and physicians' practice groups' rosters and the population of Ontario. However, when looking at the QUALICOPC physicians' whole rosters, rather than just patient survey respondents, the patient characteristics were similar to the rosters of the other physicians in their practice groups and Ontario patients in general.

Conclusion
Despite differences in demographic and practice characteristics, Ontario QUALICOPC physician respondents had similar rosters overall compared to their practice groups and primary care colleagues. Visit-based sampling led to a biased patient respondent sample. These results have implications for studies using QUALICOPC data and other physician surveys concerned with nonresponse bias.

Co-authors: Shawna Cronin, IHPME, HSPRN; Sabrina Wong, UBC; William Hogg, U of O; Mehdi Ammi, Carleton; Walter Wodchis, IHPME, HSPRN

2017 CAHSPR Conference: Presentation Abstract

Post-acute rehabilitation and medical oversight of hip fracture patients

Presented by: Kristen Pitzul, University of Toronto, HSPRN

Oral Presentation, Stream 1 Health System Performance, Friday May 26th, 11:30am - 12:45pm; 546

Objective

To compare the intensity of post-acute rehabilitation and medical oversight (i.e., physician visits) received by matched hip fracture patients discharged to either inpatient rehabilitation or the community within 30 days of acute care discharge in Ontario, Canada. This study also describes re-hospitalizations associated with rehabilitation intensity and physician visits.

Approach

Propensity-score matched retrospective cohort of older hip fracture patients who were discharged from acute care to either inpatient rehabilitation ((IPR) patients) or the community (community patients), within two health region groupings: HighIPR region (regions with relatively high number of IPR beds) and LowIPR region (regions with relatively low number of IPR beds). Outcomes are rehabilitation receipt and intensity (number of visits); physician visit or intensity; and re-hospitalization within 30 days of acute care discharge.

Results

Approximately 60% of community patients received post-acute rehabilitation. The intensity of rehabilitation and physician visits were substantially lower in community patients (median N=4 rehabilitation visits and N=7 physician visits) compared to matched IPR patients (median N=23 rehabilitation visits and median N=27-31 physician visits, depending on health region). Community patients also had substantially higher re-hospitalization rates (22%-36%, depending on health region) compared to matched IPR patients (8.9%-10%, depending on health region). Of those IPR and community patients with similar rehabilitation intensities (approximately 10 hours), this difference in proportion of patients who re-hospitalize is attenuated (i.e., between 15%-18% for IPR patients and 24%-27% for community patients, depending on health region). IPR patients have a substantially higher proportion with general practitioner visits and physiatrist visits.

Conclusion

Rehabilitation intensity for these community patients should be increased to reduce re-hospitalization rates. However, medical oversight also appears to play a role. Future research should focus on the system resources required to provide these community patients increased rehabilitation intensity, and further investigate the role of medical oversight.

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2017 CAHSPR Conference: Presentation Abstract

Distributed versus centralized leadership in the implementation of Ontario's Health Links

Presenter: Jennifer Gutberg, University of Toronto, HSPRN

Poster Presentation, Thursday, May 25th, 2017: 9:15 – 10:15am & 11:30am – 12:45pm

Objectives

Traditional notions of leadership involve centralized power at senior levels, with strategy/vision communicated to operational levels. To date, evidence on how traditional centralized leadership impacts the implementation and functioning of integrated care networks is unclear. There is a need to understand different forms of leadership across organizations involved in integrated care.

Approach

We conducted semi-structured interviews as part of a six case study evaluation of the implementation of Health Links (HL), a "low-rules" integrated care initiative in Ontario. Our analysis of the qualitative data provides insight on leadership in the HL context and provides perspectives on how leadership impacted the success of HL implementation. Our analysis draws upon both traditional and process- or actionoriented theories of leadership that look beyond senior leadership (e.g., distributed and shared leadership, complexity leadership theory). These latter theories posit that nonformal leaders are critical to the functioning of complex organizations and systems.

Results

Preliminary results show that leadership was highly centralized in the implementation of HL and concentrated almost exclusively at the senior level, including governance committees composed of CEOs and senior management. The highly centralized leadership remained important in HL, despite efforts to develop capacity for distributed leadership throughout the partner organizations. Centralized leadership at times impeded front-line workers from understanding HL goals and effectively integrating care. Key factors influencing the nature of leadership included insufficient education and communication regarding HLs, lack of delegation of operational tasks, and failure to meaningfully seek out front-line support. Overall, there was limited ability within the organizations to sustain the integrated care effort without an "overreliance" on senior leadership to drive the initiative forward.

Conclusion

Efforts to implement 'low rules' integrated care initiatives may require a more distributed approach to leadership. Though senior leadership is critical in setting a vision for integrated care networks, failure to develop distributed leadership may undermine Health Links, which rely on new and more effective connections between different providers.

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